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Action PRM
AR signature

April 26, 2002

Federal Aviation Administration
800 Independence Avenue, SW
Washington, D.C. 20591

Attention: Mr. Nicholas Sabatini, Associate Administrator for Regulation and Certification

Subject: ARAC Recommendation

Reference: ARAC Tasking, Federal Register, August 28, 1997

Dear Nick,

The Transport Airplane and Engine Issues Group is pleased to submit the following as a recommendation to the FAA in accordance with the reference tasking. This information has been prepared by the Flight Guidance Harmonization Working Group.

- FGHWG report – 25.1329, Automatic Pilot System
- Proposed NPRM – 25.1329, Automatic Pilot System
- Proposed AC 25.1329 – Flight Guidance System Approval

Also attached is a letter from Aerospace Industries Association of Canada and General Aviation Manufacturers Association. This letter recommends NPRM preamble language for consideration by the FAA.

Sincerely yours,

Craig R. Bolt

C. R. Bolt
Assistant Chair, TAEIG

Copy: Letter only

Dionne Krebs – FAA-NWR
Mike Kaszycki – FAA-NWR
Effie Upshaw – FAA-Washington, D.C.
John Acklund – Boeing
Bob Robesen – AIA
Bill Schultz – GAMA
Keith Barnett – Bombardier (AIAC)



April 4, 2002

Mr. Craig Bolt
Assistant Chair, Transport Airplane and Engines Issues Group
Aviation Rulemaking Advisory Committee (ARAC)
C/o Pratt & Whitney
400 Main Street
East Hartford, Connecticut 06108

Subject: Additional Recommendations for Submission to FAA with the FGSHWG Work Package

Dear Mr. Bolt:

The Flight Guidance Harmonization Working Group (FGSHWG) recently completed the development of an amendment to FAR/JAR 25.1329 and an update to the corresponding AC/ACJ. FGSHWG submitted its working group report to the Transport Aircraft and Engines Issues Group (TAEIG) in early February. At the March 19th meeting of TAEIG it was agreed to move the proposal forward to FAA pending either the filing of an official minority opinion (by GAMA, AIA, and AIAC), or the resolution of open administrative details. The purpose of this letter is to record the disposition of our concerns over the final open matters, and to request that this letter be submitted to the FAA together with the FGSHWG data package.

Our industry representatives participated in all FGSHWG activities. Plenary number 15, held in January 2002 in Phoenix, was used by the Working Group to develop a consensus on the content of the rule and advisory material. At that meeting, three issues that could potentially produce an industry minority opinion were discussed. An agreed change in proposed AC/ACJ language satisfied one of these concerns. The plenary did not concur, however, with the proposed method for handling changes suggested by our industry for the other two items. As an alternative, and to avoid a minority opinion, the authorities – **FAA and JAA jointly – offered to include language in the preamble to the Rule (25.1329) to clearly outline its intent.** This language would address the questions raised by our industry and provide clear guidance regarding the application of the Rule. Our industry was satisfied with this outcome and considered it a good resolution.

In the weeks following these agreements, however, it has become evident that the process for submitting a working group report lacks a means for offering regulation preamble text. While the intent of the FGSHWG with regard to our industry issues is stated in the economic analysis portion of the report, it is not explicitly outlined as content for the regulatory preamble. Since the FGSHWG consensus was dependent upon specific preamble language, our industry

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concludes it important to bring this issue to closure before moving the proposal forward. As no other vehicle exists to convey our concerns, we are using this letter as a means of completing our responsibility to the working group process.

Therefore, the following is the preamble language proposed by our industry in relation to regulatory paragraphs 25.1329(g) and (h). The majority of this language comes directly from the economic analysis portion of the FGSHWG report on which consensus exists. It was also necessary to supplement the report language with introductory material to place the report language into proper context and to align it with the expected format of the preamble:

FAR/JAR 25.1329(g)

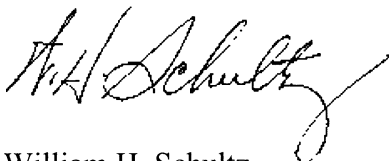
This paragraph is not intended to require compliance substantiation solely through flight tests, especially when relevant service history data exists. An analysis of such data, and its determination of applicability to a given project, may be used by the applicant to meet the stated requirement(s). With regard to certain environmental factors such as icing, and for amended TC and STC projects (e.g. where an existing, approved autopilot is replaced by another autopilot), a review of field history data may be conducted to assist in determining the extent of flight testing that is required. Where there is a lack of autopilot-related accidents and/or incidents in the icing environment, consideration should be given to showing compliance without the need for additional flight tests with ice shapes or in natural icing.

FAR/JAR 25.1329(h)

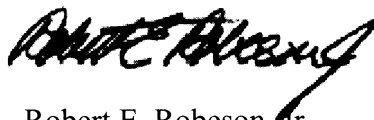
While this paragraph requires protection from both high and low speed excursions when the flight guidance system is in use, it is not intended to require the incorporation of additional systems (such as AOA) to achieve this goal. If a compatible low speed sensor exists, it may be possible to realize optimum low speed protection performance. If such an input is not available, it is assumed that the flight guidance system will be designed such that it provides the best compromise functionality it can given those limitations.

We believe the text suggested above accurately reflects the consensus agreement reached by the FGSHWG. Please consider these two paragraphs as our submittal for language to be included in the preamble to the rule. We, therefore, kindly request you submit this letter to the FAA together with the FGSHWG work package. Also, we would appreciate the authorities' assistance in capturing this recommendation when they draft the proposed rule notices.

Very truly yours,



William H. Schultz
Vice President, Engineering
General Aviation
Manufacturers Association



Robert E. Robeson, Jr.
Vice President, Civil Aviation
Aerospace Industries
Association of America, Inc.



Keith Barnett
Manager, Airworthiness
Bombardier Aerospace
on behalf of AIAC